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| 10/782,215 | 02/19/2004 | James A. McClain | 030900 | 5338 |
| 41835 7590 11/01/2007 KIRKPATRICK & LOCKHART PRESTON GATES ELLIS LLP HENRY W. OLIVER BUILDING 535 SMITHFIELD STREET PITTSBURGH, PA 15222 | | | | |
| | | | EXAMINER KRISHNAN, GANAPATHY | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

The Amendment after Final filed 03/05/2007 has been received, entered and carefully considered. The following information provided in the amendment affects the instant application:

1. Claims 2, 5, 8, 11, 17 and 25 have been canceled.
2. Claims 1, 15-16, 24 and 26-27 have been amended.
3. Remarks drawn to claim objections and rejections under 35 USC 112, first paragraph, 102 and 103.

Claims 1, 3-4, 6-7, 9-10, 12-16, 18-24 and 26-27 are pending in the case.

The finality of the Office Action mailed 05/31/2007 has been withdrawn and the following rejection is made of record.

Claim Objections

The objection to claim 27 has been withdrawn in view of applicants' arguments.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-4, 6-7, 9-10, 12-16, 18-24 and 26-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making resistant starch with a whiteness level of 65, does not reasonably provide enablement for making resistant starch having

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a whiteness level above 65 using the conditions as instantly claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

A conclusion of lack of enablement means that, based on the evidence regarding each of the factors below, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation.

- (A) The breadth of the claims
- (B) The level of one of ordinary skill
- (C) The amount of direction provided by the inventor
- (D) The existence of working examples
- (E) The level of predictability in the art
- (F) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The breadth of the claims

The recitation in the instant claims namely, a whiteness level of at least 65, which means that the whiteness level can be above 65.

The level of one of ordinary skill in the art

The level of skill of those in this art is that of one having experience in organic synthesis.

The amount of direction provided by the inventor

The specification (page 8) recites that the heating is done at temperatures between 140 and 180°C. This means that any temperature in the said range can be used to produce the starch with the whiteness level in the range 60-100.

The existence of working examples

The working examples set forth in the instant specification are drawn to heating of acidified corn starch to 140, 150 and 170°C until a whiteness level of 65 is reached. Even though the examples are not limited to the target whiteness level of 65, applicants' examples do not show that a whiteness level of greater than 65 can be achieved especially based on the disclosure of Ohkuma.

The level of Predictability in the Art

Ohkuma et al (US 5,358,729; used in the rejection below) teaches that there is an inverse relationship between whiteness and temperature (col. 23, Table 13). The process of Ohkuma is same as used instantly with the pH seen to be very close to the range as claimed in the instant process. In the example of Ohkuma heating at 170°C produces starch with a whiteness level of 21.2. It is uncertain from this disclosure if a whiteness level of greater than 65 could be attained if the heating is prolonged at these temperatures. It is not predictable that if a higher level of whiteness can be attained if temperatures above 170°C are used since temperature that high can cause degradation and caramelization, which can produce coloring (Ohkuma, col. 6, lines 62-68). Because of this uncertainty undue experimentation is necessary.

The quantity of experimentation needed to make or use the invention based on the content of the disclosure

Indeed, in view of the information set forth, the instant disclosure is not seen to be sufficient to represent the process as instantly claimed for making resistant starch with the level of whiteness greater than 65 at temperatures as instantly claimed. One of ordinary skill in the art would have to carry out undue experimentation to practice the instant invention.

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Claim Rejections - 35 USC § 102

The rejection of Claims 1, 3, 6-7, 13-16, 21, 23-24 and 27 under 35 U.S.C. 102(b) as being anticipated by Ohkuma et al (US 5,358,729) of record has been overcome in view of applicants' amendments and arguments.

Claim Rejections - 35 USC § 103

Claims 4 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkuma et al (US 5,358,729) of record has been overcome in view of applicants' amendments and arguments.

Conclusion

Claims 1, 3-4, 6-7, 9-10, 12-16, 18-24 and 26-27 are rejected

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathy Krishnan whose telephone number is 571-272-0654. The examiner can normally be reached on 8.30am-5pm.

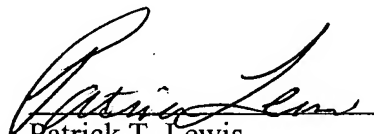
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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GK



Patrick T. Lewis
Primary Patent Examiner
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